

Amendments to the Claims:

This listing of claims shall replace all prior versions, and listings, of claims in the application.

Listing of Claims

Claims 1-9 (Canceled)

10. (Currently amended) An optical reader comprising:
a lens system for focusing, along an optical path, an image of an object being read;

an image sensor array disposed in the optical path for detecting a signal representative of the image, wherein the image sensor array is disposed at a tilt angle α with respect to the optical path of lens system according to the Scheimpflug principle;

means for rotating the image on the image sensor array about a rotational axis defined along the optical path while maintaining the tilt angle α .

11. (Previously presented) An optical reader according to Claim 10, wherein the means for rotating the image of the object comprises means for synchronizing rotation of the image with a timing cycle of raster scan line reading of the image sensor array.

12. (Previously presented) An optical reader according to Claim 10, wherein the means for rotating the image comprises a dove prism.

13. (Previously presented) An optical reader according to Claim 10, wherein the means for rotating the image comprises a mirror assembly.

14. (Previously presented) An optical reader according to Claim 10 wherein the image sensor array comprises a two-dimensional array.

15. (Currently amended) An optical reader comprising:
a lens system for focusing along an optical path an image of an object being read;

a plurality of image sensor arrays disposed in the optical path for detecting a signal representative of light reflected from the object through said lens system, wherein each of said image sensor arrays is disposed at approximately a same tilt angle α with respect to the optical path according to the Scheimpflug principle, wherein each of said image sensor arrays being oriented at a different rotational angle to the optical path in relation to one another.

16. (Previously presented) An optical reader according to Claim 15 wherein said plurality of image sensor arrays comprises first and second image sensor arrays.

17. (Previously presented) An optical reader according to Claim 16 wherein said first and second image sensor arrays are oriented at a different rotational angle to the optical path, spaced by about 90 degrees to one another.

18. (Previously presented) An optical reader according to Claim 15 wherein said plurality of image sensor arrays comprises first, second and third image sensor arrays.

19. (Previously presented) An optical reader according to Claim 18 wherein said first, second and third image sensor arrays are oriented at a different rotational angle to the optical path, evenly rotationally spaced about the optical path.

20. (Previously presented) A method of optical reading comprising the steps of:

focusing, along an optical path, an image of an object being read onto an image sensor array;

detecting, at the image sensor array, a signal representative of the image, the image sensor array being disposed at a tilt angle α with respect to the optical path according to the Scheimpflug principle;

rotating the image of the object about a rotational axis defined along the optical path while maintaining the tilt angle α .

21. (Previously presented) An optical reader according to Claim 15 further comprising an aperture disposed in the optical path.

22. (Currently amended) An optical reader comprising:
means for focusing, along an optical path, an image of an object being read;

a plurality of image sensor arrays arranged about the optical path, each of said image sensor arrays being disposed at approximately a same tilt angle α with respect to the optical path according to the Scheimpflug principle, wherein each of said image sensor arrays is oriented at a different

rotational angle to the optical path in relation to one another.

23. (Previously presented) An optical reader according to Claim 22 wherein said plurality of image sensor arrays comprises first and second image sensor arrays.

24. (Previously presented) An optical reader according to Claim 23 wherein said first and second image sensor arrays are oriented at a different rotational angle to the optical path, spaced by about 90 degrees to one another.

25. (Previously presented) An optical reader according to Claim 22 wherein said plurality of image sensor arrays comprises first, second and third image sensor arrays.

26. (Previously presented) An optical reader according to Claim 25 wherein said first, second and third image sensor arrays are oriented at a different rotational angle to the optical path, evenly rotationally spaced about the optical path.

27. (Previously presented) An optical reader according to Claim 22 wherein said means for focusing comprises a single lens element.

28. (Previously presented) An optical reader according to Claim 27 further comprising an aperture disposed in the optical path.

29. (Currently amended) A method of optical reading comprising the steps of:

focusing, along an optical path, an image of an object being read;

arranging a plurality of image sensor arrays about the optical path with each of said image sensor arrays being disposed at approximately a same tilt angle α with respect to the optical path according to the Scheimpflug principle, wherein each of the image sensor arrays being oriented at a different rotational angle to the optical path in relation to one another;

detecting, at each of the image sensor arrays, a signal representative of light reflected from the object.

30. (Currently amended) A method of optical reading comprising the steps of:

focusing, along an optical path, an image of an object being read;

projecting the image toward a collection system comprised of one or more sensor arrays, each sensor array being arranged at a tilt angle α with respect to the optical path according to the Scheimpflug principle;

detecting the image at differing rotational angles relative to the optical path while maintaining the tilt angle α of the sensor array with respect to the optical path.

31. (Previously presented) A method of optical reading according to Claim 30 wherein the step of detecting the image at differing rotational angles comprises arranging a plurality of image sensor arrays about the optical path, wherein each of said image sensor arrays being oriented at a different rotational angle to the optical path in relation to one another.

32. (Previously presented) A method of optical reading according to Claim 30 wherein the collection system comprises one image sensor array, and the step of detecting the image at differing rotational angles comprises rotating the image sensor array about a rotational axis defined along the optical path while maintaining the tilt angle α and detecting, at the image sensor array, a signal representative of the image.

33. (Previously presented) A method of optical reading according to Claim 30 wherein the collection system comprises one image sensor array, and the step of detecting the image at differing rotational angles comprises rotating the image of the object about a rotational axis defined along the optical path while maintaining the tilt angle α and detecting, at the image sensor array, a signal representative of the image.